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(12) United States Patent

Neumann et al.

(54) GAS LIQUID CONTACTOR AND EFFLUENT CLEANING SYSTEM AND METHOD

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(58) **Field of Classification Search** 261/115–118; 96/243; 95/223, 224; 239/592, 594, 595, 239/597–599

See application file for complete search history.

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(57) ABSTRACT

The invention relates to a gas liquid contactor and effluent cleaning system and method and more particularly to an array of nozzles configured to produce uniformly spaced flat liquid jets shaped to minimize disruption from a gas. An embodiment of the invention is directed towards a gas liquid contactor module including a liquid inlet and outlet and a gas inlet and outlet. An array of nozzles is in communication with the liquid inlet and the gas inlet. The array of nozzles is configured to produce uniformly spaced flat liquid jets shaped to minimize disruption from a gas flow and maximize gas flow and liquid flow interactions while rapidly replenishing the liquid.

22 Claims, 23 Drawing Sheets

